Effectiveness of Financial Education on Financial Management Behavior and Account Usage: Evidence from a 'Second Chance' Program

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Abstract The Get Checking™ program is a "second chance" program that aims to provide financial education to consumers who were reported to ChexSystems by a previous financial institution for account abuse or mismanagement. Using data collected from Indiana participants of the program, the first goal of this study is to investigate the success of the program in impacting financial management behavior of the participants. The second goal is to investigate the change of participants' actual behavior in terms of account usage and asset-building after the completion of the program. The findings show that the program was successful in positively influencing the financial management behavior of Non-whites in terms of recording transactions and communicating with financial institutions. Also, financial management skills emphasized in the program, especially communicating with financial institutions, have a significant positive effect on the actual behavior of the participants in terms of obtaining a loan. Among the heterogeneous group of the unbanked, findings shed light on the demographic groups, such as Non-whites and young adults, that could benefit the most from this type of financial management education.

Keywords Account Usage, Asset-building, Financial Management Education, Get Checking™ Program, Unbanked

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The unbanked – those who rely on check cashing outlets and pawn shops for their financial transactions – usually pay high costs for check cashing and electronic money transfers (Barr 2004). They can also become victims of financial scams and predatory lending for their short-term loan needs (Barr 2001; Seidman and Tescher 2003; Stegman and Faris 2003). In addition to addressing these safety and security issues, establishing banking relationships is a key element in establishing financial stability and building financial assets (Barr 2001; Barr and Sherraden 2005). Finally, unbanked households can improve their credit-risk profiles and gain access to lower-cost sources of credit by joining the mainstream financial system and improving relationships with financial institutions (Belsky and Calder 2004).

A number of organizations (National Endowment for Financial Education, Cooperative Extension System, National Foundation for Consumer Credit, social service and community based-organizations, and financial institutions) have developed programs to teach personal financial education to low- and moderate-income households. In general, the objective of these programs is to increase financial knowledge, positively impact motivation, and lead to changed behavior. Vitt et. al (2000) was one of the first studies to catalog these various programs.

In addition, financial institutions and educators have specifically developed programs to bring the unbanked into the mainstream financial services market. One example, Money Smart, an adult financial education program developed by the Federal Deposit Insurance Corporation (FDIC), aims to help low-and moderate-income individuals develop financial skills and banking relationships.[1] Through Money Smart, the FDIC was able to link many banks and

[1] For more information on this program, see http://www.fdic.gov/consumers/consumer/moneysmart/

community groups and establish 1,200 private and public partnerships (Financial Literacy and Education Commission 2006).

Lyons, Chang, and Scherpf (2005) investigated if – and how – financial education translated into behavior change for low-income populations. They concluded that participants' prior level of financial experience may be more important than the amount of education received and that the financial management education may have the greatest impact on financial behaviors that can be readily altered in the short run. Finally, they challenged researchers to "focus less on outcomes tied to individuals' financial situations and more on whether individuals are able to make sound financial decisions regardless of their financial situation" (p. 41). In addition, Xiao et al. (2004) investigated the changes in the behavior of participants of Money 2000^{TM}. This program is unique as it was developed based on the Transtheoretical Model of Change, which is a framework that has been widely used to study health-related behaviors, like quitting smoking, and has established that the efficacy of treatment interventions increases with a person's readiness for action. Their findings suggested that the same principle can be applied to financial management behavior.

Although researchers have begun analyzing what is known about effective financial education and the impact of financial education programs on consumer skills and behaviors, there is still much to learn (Borden et al. 2008; Collins 2007; Fox et al. 2005; Fry et al. 2008); Hogarth 2006; Lyons et al. 2006; Peng et al. 2007). The effectiveness of the programs in improving unbanked consumers' financial management skills, influencing their attitudes towards financial institutions, and changing their actual behavior in terms of account usage and asset-building, has not been well documented. In addition, little is known about which sub-groups of the unbanked population benefit most from these educational programs.

The goal of this study is to document the role of financial management education in impacting financial management behavior and affecting the asset-building behavior of

consumers who once had a checking account but had it closed by a financial institution. This study uses data collected from Indiana participants of the Get Checking™ program. This program is a "second chance" program that aims to provide financial education to consumers who were reported to ChexSystems by a previous financial institution for account abuse or mismanagement.

Get Checking™ was developed in 1998 in Milwaukee, Wisconsin when a University of Wisconsin Extension, Cooperative Extension educator and staff from financial institutions and non-profit educational organizations collaborated to create the program. As a "second chance" program, it emphasizes financial education, restitution if money is owed to a previous financial institution, and the opportunity to open a checking or savings account upon completion of the program. In 2001, eFunds Corporation became a national partner. Across the country, financial institution partners market the program to consumers and open deposit accounts for program graduates. Educational partners teach the curriculum**.**

The content of the course includes an introduction to the Get Checking Program™ and a discussion of the importance of choosing an account that is right for the participant. It includes teaching participants how to manage a checking account. Finally, the basics of financial planning, and the importance of account ownership and credit rating are emphasized.

Consumers register and pay a fee for the six-hour class. When they complete all class requirements, including successfully passing a quiz, they earn a certificate. After paying restitution to any financial institutions they owe money to, they present the certificate to a participating financial institution and are able to open an account.[2]

A follow-up survey was mailed to all central Indiana participants who completed the program in 2003, 2004, and 2005. The survey included questions about the checking, savings, and other types of accounts that the participants had opened since their completion of the

[2] See http://www.getchecking.org/ for more information about the program.

program. Using data from the follow-up survey, the first goal of this study was to analyze the success of the program in impacting the financial management behavior of the participants. In particular, this study investigated whether demographic characteristics of the participant have a varying effect on recording transactions, reconciling bank statements, budgeting, and communicating with financial institutions. The second goal of this study was to investigate the actual behavior of participants in terms of account usage and asset-building since the completion of the program. Specifically, this study investigated the effect of financial management skills emphasized in the program, especially communicating with financial institutions, on the likelihood of opening a savings, an asset, or a loan account.

Determining the effectiveness of financial education programs targeted towards low- and moderate-income households is difficult for a number of reasons. First, the effects of the program on the participant's behavior may be very different at the end of the program compared to six months after it ends. Therefore, the point in time when the impact of financial management education is evaluated plays a role when investigating whether or not a program improves financial literacy and changes behaviors related to financial management. In this study, the interval between completing the program and responding to the survey was long enough to provide a reasonable indication of actual behavior change by the respondents.

Second, selection issues create difficulty in measuring the effectiveness of the program. If the participants who enroll in the program are individuals who are already self-motivated to change their financial practices, any changes in the observed behavior could be a result of the motivation and aptitude of the participant, not the impact of the financial management course (Caskey 2006). Since the financial institution partners require all participants to provide the Get Checking™ certificate of completion as a requirement to opening a checking or savings account, in this study the selection issue plays a very small role.

In the next section, the literature describing what is known about the unbanked and how they could benefit from participating in the financial services market is reviewed. Then, characteristics of the unbanked who once had a checking account are analyzed. Because such an analysis has not been previously published, it is included here in order to place the results of this study in context. Following that, the data and methods of this study are described. Finally, the results are discussed and limitations, implications, and conclusions are presented.

Literature Review

What Do We Know About the Unbanked?

Despite the challenges of being unbanked, according to the 2004 Survey of Consumer Finances, the proportion of families who did not do business with a financial institution did not change much from 2001 to 2004 (Bucks et al. 2006). In 2004, 8.7% of American families did not do business with a financial institution and were considered unbanked. Moreover, 10.6% of families did not have a checking account in 2004, a slight decrease from 12.7% in 2001 (Bucks et al. 2006).

The unbanked community is not a homogenous group in terms of their financial and demographic characteristics. Data from local and national surveys indicate that households without banking relationships tend to have lower income and net worth; are younger, unemployed, and less educated; are headed by Blacks, Hispanics, and single females; and rent, rather than own, their residence (Berry 2004; Dunham 2001; Hogarth et al. 2003; Hogarth et al. 2005; Paulson and Rhine 2008).

There are a variety of reasons cited by the unbanked for not having a checking account. The Survey of Consumer Finances (SCF) asks respondents that do not have a checking account to give a reason for not having an account. Commonly reported reasons include not writing enough checks to make account ownership worthwhile, not having enough money, and not liking to deal with banks (Bucks et al. 2006). Recent studies have discussed reasons why low-

income consumers choose to remain unbanked and use alternative financial service providers (Belsky and Calder 2004; Berry 2004; Dunham 2001). A number of different reasons are mentioned in these studies. First, consumers may prefer to use alternative providers for convenience because these providers are more likely than banks to be open outside traditional business hours and have staff that speak their language. Second, some consumers mistrust banks due to past negative experience in the United States or another country. Third, low-income consumers may not have a bank account because they do not perceive that they have surplus cash to save. Fourth, poor credit scores prevent some households from having a checking or saving account.

How Could the Unbanked Benefit from Participating in the Financial Services Market?

Consumers who use financial service centers to cash checks usually pay high fees for these services. To cash a check, a consumer usually pays between 2% and 3.5% of the face value of the check (Financial Service Centers of America n.d.).[3] These financial service centers also offer services including money orders, money wire transfers, automatic teller machine access, government benefit and payroll payments, payday loans, and electronic tax preparation. According to the Survey of Non-Bank Institutions conducted in four markets (Atlanta, Boston, San Antonio and San Diego) in December, 1999 and January, 2000, the average fee for check cashing was between $4.10 and $6.68, and the average fee for money orders was between $0.40 and $0.61 (Bachelder and Ditzion 2000). In 28 states, check cashing fees are regulated. In Indiana, for example, a financial service center cannot charge check cashing fees in excess of $5.00 or 10% of the face amount of the check (Indiana Department of Financial Institutions n.d.). In a survey of low-income neighborhoods in New York City and Los Angeles, those who used check cashing outlets to cash their checks paid $3.38 on average

[3] The industry reports that in approximately 11,000 financial service centers, 180 million checks totaling $55 billion are processed annually.

per check cashed and those who purchased money orders paid $1 for a money order (Dunham 2001).

Those that have a poor credit history or lack credit cards may use payday lenders for their short terms credit needs. Payday loans carry high implicit annual interest rates that result from an approximately $15 fee for each $100 borrowed. For an average size loan of $300, the fee for a two-week loan translates into an APR of 380% (Stegman and Faris 2003). Payday lenders extended 26 million to 47 million loans in 2000, totaling over $8 billion to 14 billion (Stegman and Faris 2003). Due to the high cost and the short term, many borrowers cannot repay their original loan by their next payday and renew the loan by paying another fee. These borrowers take out payday loans repeatedly throughout the year and get caught in a "debt trap." Using data from a national survey conducted by the Community Financial Services Association of America, Elliehaussen and Lawrence (2001) reported that approximately 35% of the customers surveyed renewed their payday loan one to four times; 20% of customers renewed their loans nine or more times in a year.

Subprime lending businesses target those who cannot secure credit at prime rates. There has been an increase in the size of the industry as home purchase and home refinance loans by subprime lenders increased by 760% and 890%, respectively, from 1993 to 1999 (Immergluck and Wiles 1999). Subprime firms typically charge borrowers higher fees and interest rates than "prime" lenders and demonstrate predatory lending behavior (Immergluck and Wiles 1999). Examples of predatory lending include targeting vulnerable populations (less educated and unbanked), packing loans with unnecessary fees, and concealing the true cost of financing with balloon payments.

Increasing asset accumulation among low- and moderate-income households is critical to lowering the dependence on high-cost short-term credit, decreasing the risk of financial stress due to income loss or unexpected expenses, and improving the prospects for asset-building

through homeownership. Without a checking or savings account, however, low- and moderate-income households face barriers to asset accumulation (Barr 2001; Barr and Sherraden 2005). Dunham (2001) showed that across different income groups, individuals with bank accounts were more likely to save regularly than unbanked individuals. Gale and Carney (2001) found that low-income households with bank accounts are more likely to have other types of financial assets than households without bank accounts.[4] Thus, access to a bank account can be an important initial point for understanding how the mainstream financial services market works and for obtaining financial accounts.

Without a transaction account, it is almost impossible to establish a credit history and qualify for a loan. Households, especially low-income households, cannot obtain costly assets such as homes and autos without credit. Hogarth and O'Donnell (1999) showed that owning a bank account is a more significant factor than household net worth, income, or education in predicting whether a household holds a mortgage and auto loan. In addition, Chakravarty and Yilmazer (2005) showed that the relationship between the borrower and lender, measured by the length of relationship and the number of transaction accounts, significantly affects the borrower's decision to apply for a loan and the lender's approval/rejection decision.

Characteristics of Unbanked Consumers Who Once Had a Checking Account

According to the 2004 SCF, 10.6% of families did not have a checking account and more than 50% of households without a checking account reported that they once had a checking account (Bucks et al. 2006). Therefore, their relationship with a financial institution must have ended by either their own choice or the financial institution's decision. Using data from the 2004 SCF, this section investigates whether the demographic characteristics of those who once had a checking account and their reported reasons for not having a checking account are significantly different than those who never had a checking account.

[4] Gale and Carney (1998) acknowledge that having a bank account is endogenous to the asset holding behavior. Therefore, their findings do not imply that giving a bank account to a household would cause the household's financial asset ownership to rise.

The SCF, sponsored by the Federal Reserve Board in cooperation with the Department of the Treasury, is a triennial survey of U.S. families' financial portfolios and includes detailed information on families' balance sheets, use of financial services, and demographics. Table 1 describes the demographic characteristics of those who did, and those who did not, have a checking account in the 2004 SCF. Compared to households with a checking account, those without a checking account are more likely to be headed by younger and single adults, Blacks and Hispanics, and have lower household income.

As the last two columns of Table 1 show, there are significant differences between those who once had a checking account and those who never had a checking account. In particular, race and income appear to play a significant role in whether or not the unbanked household once had a checking account. Those households that once had a checking account are less likely to be headed by Hispanics and more likely to be headed by Whites than those households that have never had a checking account. Households that once had a checking account are also likely to have higher household income than households that have never had a checking account.

As shown in Table 1, consumers have a variety of reasons for not having a checking account. The reasons can be grouped into categories. For example, the cost/benefit analysis of having an account (not writing enough checks to make having an account worthwhile), financial management education needs (not being able to manage or balance a checking account, problems related to credit history, and not liking to deal with banks), and lack of financial resources, are types of reasons consumers gave for not having a checking account. Reasons related to the cost/benefit analysis of having an account are less common and reasons related to financial management education needs are more common among those who once had a checking account. For example, 24.4% of those who once had a checking account report not writing enough checks to make it worthwhile to have an account compared to 32.1% of those

who never had a checking account. In contrast, 10.5% of those who once had a checking account report not being able to manage or balance a checking account, compared to 1.5% of those who never had a checking account. These summary statistics provide evidence that for those who once had a checking account, the benefit of having an account is greater than the cost, however, financial management education issues are more likely to prevent them from having and maintaining an account. Therefore, providing financial education to this group of consumers should have a positive effect on their account usage.

Data and Methods

From 2003-2005, 1,483 central Indiana consumers earned certificates through the Get Checking™ program and responded to the end of session evaluations after three and six hours of instruction. Most participants were referred to the program by the participating financial institutions and some participants reported that they learned about the program from the media or through friends. Therefore, as with any other financial management education program, the motivation level of the participants can be assumed to be higher than those consumers who were also reported to ChexSystems but did not register to attend the program.

In March 2006, a letter announcing the follow-up survey was mailed to 1,400 Get Checking™ program participants that provided a complete address on their registration forms and 212 of these letters were returned without a forwarding address. In April 2006, a follow-up survey was mailed to 1,188 participants, and the number of surveys returned as undeliverable was 63. Finally, 161 program participants responded to the follow-up survey. The response rate to the follow-up survey was 14.2%, and data used in this study includes information from 160 surveys. No incentives were used to enhance the response to the follow-up survey.

The follow-up survey included questions about the demographics of the respondents and the financial management skills they acquired during the program. It included questions about whether they opened a checking and savings account since the completion of the program and

whether these accounts were still open. It also asked whether they had opened other types of asset and loan accounts since the completion of the program. The survey also asked what they do differently, if anything, to manage their accounts since the completion of the program.

Most of the respondents answered the questions on the survey completely. There were two missing values for the respondent's race and two missing values for the respondent's gender. Respondents with missing demographic characteristics were not included in the analyses that utilize these characteristics. In addition, six respondents did not indicate whether they opened a savings account since the completion of the program and/or whether the accounts were still open.

Table 2 presents the demographic and socioeconomic characteristics of the participants in both the end of session evaluations and the follow-up survey. The information from the follow-up was not linked to the end of session evaluations. First, the analysis assesses whether those who responded to the follow-up survey were significantly different than those who completed the program. The majority of survey respondents in both surveys were between 25 and 44 years old. However, the age distribution of the respondents varied significantly across the two surveys and the average age of the participants in the follow-up survey was significantly higher.[5] In addition, the distribution of gender varied significantly between the participants of the two surveys. While 44.1% of the participants of the Get Checking™ program were male, only 36.7% of the follow-up survey respondents were male.

In terms of race, household size, and household income of the participants, there were no significant differences between the respondents of the end of session evaluations and the follow-up survey. In the follow-up survey, the proportion of Non-whites was about 46.8%. Almost 90% of the Non-whites in the follow-up survey were Black respondents. Nearly 30% of respondents lived in single-person households while nearly half of the respondents reported

[5] The follow-up surveys were mailed to the participants 1-3 years after they completed the program.

that their household consisted of two or three people. Nearly 20% had household incomes less than $18,871 and more than 30% had household incomes between $18,871 and $31,450.

In addition, Table 2 shows how the demographic characteristics of the respondents of the follow-up survey varied by race. Non-whites were significantly different than Whites in terms of gender and household size. In particular, 21.9% of Non-white respondents were male, compared to 50.6% of White respondents. Also, 20.2% of Non-whites lived in single-person households, compared to 36.9% of Whites. Non-white respondents were not significantly different than White respondents in terms of their age and income.

The end of session evaluation of the Get Checking™ program also asked the participants how confident they felt about several financial management activities as a result of the program. The majority of participants indicated the highest possible level of confidence about each of these behaviors. For example, 84.2% of participants indicated they felt very confident about maintaining a check register and 80.2% of participants indicated they were very confident about reconciling their checkbook registers with a bank statement. Respondents were relatively less confident about talking to a financial institution about savings goals or credit needs. Nevertheless, 75.7% and 74.4% of participants indicated they were very confident about talking to a financial institution representative about savings goals and credit needs, respectively. The goal of the follow-up survey was to measure actual behavior change in terms of account usage and asset-building. Therefore, questions on level of confidence about financial management activities were not included in the follow-up survey.

Table 3 presents the summary statistics for changes in actual behavior in terms of account usage and changes in financial management behavior since the completion of the Get Checking™ program. In terms of account usage, 97.5% of the respondents opened a checking account and 90.6% still had the checking account open at the time the survey was conducted. At the same time, 56.4% of the respondents opened a savings account, and the retention rate

was quite high, as 54.3% of the sample reported still having the savings account open at the time the survey was conducted. However, the proportion of respondents who opened another asset account or a loan account was relatively lower than the proportion of respondents who opened a checking or savings account. For example, 15.0% of respondents opened an asset account. Most frequently opened asset accounts were retirement savings (6.2%) and certificates of deposit (5.0%). In terms of loan accounts, 16.2% reported having opened a loan account. The most frequently opened loan accounts were auto (9.3%) and mortgage loans (7.5%).

The table in the Appendix shows that the age and race of the respondent had a significant effect on the account usage. In the sample used in this study, all of those respondents below age 25 opened a checking account after earning their certificate. In addition, those below age 25 were more likely to open an asset or a loan account. Specifically, they were more likely to obtain an auto loan. After earning their certificate, Non-whites were significantly more likely to open an asset account and less likely to open a loan account.

The follow-up survey included a question that asked whether or not respondents owed any money to the financial institution before they participated in the Get Checking™ program and how long it took them to repay their debts to the financial institutions. As reported in Table 3, 61.2% of the respondents owed money to a financial institution before they earned their certificate. While 40.0% of the respondents repaid the amount they owed within one month after earning the certificate, 5.6% made restitution within two or three months. In addition, at the time the follow-up survey was conducted, 10.6% reported still owing money to a financial institution and being in the process of making restitution.

In the follow-up survey, respondents were asked to indicate changes in behavior with respect to managing their finances after completing the program. Table 3 presents the percentage of respondents that reported a positive change in financial management behavior.

These changes were analyzed in four categories: recording transactions (keeping an up-to-date check register or a record of ATM or debit card transactions), reconciling bank statements with check register, planning a budget (working to achieve a written financial goal or managing income and expenses to meet financial goals or using a written spending plan) and, finally, communicating with financial institutions. Overall, 75.0% reported recording transactions, 53.1% reported reconciling bank statements with their check register, 67.5% reported planning a budget, and 44.3% reported communicating with the financial institution since the completion of the program.

Table 3 presents the account usage and financial management behavior by the communication behavior of the respondents. All of the respondents who reported communicating with financial institutions opened a checking account. Respondents who reported communicating with financial institutions were more likely than others to open an asset account and to obtain a loan. Those who reported communicating with financial institutions were also more likely to be keeping an up-to-date check register or a record of ATM or debit card transactions; reconciling bank statements with their check register; and working to achieve a written financial goal, or managing income and expenses to meet financial goals, or using a written spending plan.

In the follow-up survey, respondents were asked to indicate their experiences with cashing checks and buying money orders. Almost 35% of survey participants reported that they had no expenditures for cashing paychecks or buying money orders. This finding is consistent with Dunham (2001). In her study, 27% of the unbanked survey population in New York and Los Angeles did not incur any costs for check cashing and money orders. The analysis of Get Checking™ participants indicated that for those who reported non-zero expenditures, the median and average monthly costs of cashing paychecks and buying money orders were $16.00 and $23.48, respectively. On average, Get Checking™ participants

reported cashing 2.86 paychecks and buying 5.48 money orders per month. There were no significant differences in the cost and the number of checks and money orders by age. However, there were significant differences in the cost of cashing paychecks and buying money orders by the race of the respondent. For example, while White respondents paid on average $28.59 per month for these services, Non-white respondents paid only $15.91 per month. The median values for the cost of these services for Whites and Non-whites were $21.75 and $11.48, respectively. In addition, White respondents purchased a greater number of money orders than their Non-white counterparts (6.35 vs. 4.58).

Results

Changes in Financial Management Behavior

Changes in financial management behavior analyzed in this study, which were recording transactions, reconciling bank statements with check register, planning a budget, and communicating with financial institutions, were recorded as dichotomous variables. Therefore, probit models were used to analyze the role of demographic and socioeconomic characteristics on reported changes in these financial management behaviors. For each category of financial management, it was expected that younger respondents and those with higher household income would be more likely to change their financial management behavior.

Table 4 presents the results of probit regression for the determinants of changes in financial management behavior since the completion of the Get Checking™ program. Table 4 also presents the marginal effects for the reference group of respondents which consists of White females below age 25 years who live in one person households and who have household income of $18,871- $31,450. The base probability of recording, reconciling, budgeting, and communicating for the reference group was 63.0%, 29.2%, 42.7%, and 35.0%, respectively. The marginal effect of each dummy variable represents the change in the base probability of the reference group, all else being equal. For example, the base probability of recording is

equal to Φ(0.332), where Φ() is the standard normal cumulative distribution and 0.332 is the intercept of the regression for recording. The estimated coefficient of Male is 0.522, and the marginal effect of Male is Φ(0.332+0.522)- Φ(0.332), which is equal to 18.3%.

The results show that age had limited explanatory power on changes in financial management behavior with respect to reconciling bank statements with check registers and planning a budget. Respondents who were between age 45 and 55 and respondents over age 55 were more likely to reconcile checkbook registers and bank statements than those below age 25. Similarly, respondents between age 25 and 34 were more likely to plan a budget than those below age 25. Gender had some limited influence on the change in financial management behavior, and male respondents were more likely to record transactions than females.

Non-white respondents were more likely to record transactions and communicate with financial institutions than White respondents. Finally, income had some impact on the change in financial management behavior. Respondents who had household income over $50,321 were more likely to reconcile bank statements with their check register and plan a budget than respondents who had household income between $18,871 and $31,450.

Changes in Behavior in terms of Account Usage and Asset Building

Following the estimation of the changes in financial management behavior, three sets of probit models were estimated to determine the factors influencing the decision to open a savings, an asset, and a loan account, which were recorded as dichotomous variables. Each model was estimated in three steps: first including only demographic factors as the explanatory variables (Model I), second, adding the four dichotomous variables that measure changes in financial management behavior (recording transactions, reconciling bank statements with check register, planning a budget, and communicating with financial institutions) to Model I (Model II), and third, adding an interaction term between race and communicating with financial institutions variable to Model II (Model III).

Model II was estimated to capture the effect of changes in financial management behavior on personal finances.[6] One of the explanations in the literature for not having a banking relationship is that unbanked consumers mistrust banks due to their negative experiences, and Non-whites are more likely to have negative experiences with banks than Whites (Longhofer and Peters 2005). The data from the 2004 SCF confirms that claim. The percentage of households in Table 1 citing not liking to deal with banks as the reason for not having an account was the second highest reason (21.9%). In addition, previous studies show that good banking relationships increase the probability of being approved for a loan and accumulating assets (Chakravarty and Yilmazer 2005). Model III was estimated to investigate whether improving the relationship with a financial institution affects the account usage of Whites differently than the account usage of Non-whites.

Table 5 presents the estimation results of the probit models and marginal effects for the likelihood of opening a savings account since the completion of the Get Checking™ program. Marginal effects of the dummy variables are calculated using the same method as the marginal effects presented in Table 4. In all three models that were estimated, probability of opening a savings account was significantly affected by household size and income. However, other demographic factors such as age, race, and gender of the respondent did not have a significant impact on the likelihood of opening a savings account. Respondents who lived in households with three or more people were less likely to open a savings account than those who lived in one person households. Compared to respondents who had household income between $18,871 and $31,450, respondents who had household income less than $18,870 were less likely, and respondents who had household income above $50,321 were more likely to open a savings account. Changes in financial management behavior did not significantly affect the decision to

[6] This model estimates the effect of financial management skills that were obtained during the course. If the participants were already recording transactions, reconciling bank statements with their check register, planning a budget, or communicating with financial institutions before they had participated the Get Checking™ program and did not report a change of behavior, the estimated coefficients on these variables would underestimate the true effect of these variables on opening a savings, asset, or loan account.

open a savings account. In addition, no significant differences in the impact of communicating with financial institutions between Whites and Non-whites on the decision to open a savings account were observed.

As presented in Table 6, age and race significantly influenced the probability of opening an asset account since the completion of the Get Checking™ program. In comparison to those below age 25, those between 25-34 and those above 55 were less likely to open an asset account (Model II). Non-white respondents were more likely to open an asset account. Changes in communication with financial institutions had a significant positive effect on the decision to open an asset account.

In Table 6, Model III reports that Non-white respondents who communicated with financial institutions were more likely to open an asset account than Non-white respondents who did not communicate with financial institutions.[7] Compared to Whites who communicated with financial institutions, Non-whites who communicated with financial institutions were more likely to open an asset account.[8] In terms of opening an asset account, Non-whites seemed to benefit more from the financial management content emphasized during the program.

Finally, the determinants of obtaining a loan since the completion of the Get Checking™ program were estimated. Results are presented in Table 7. Similar to the findings for asset accounts, respondents below age 25 were more likely to obtain a loan than older respondents. Male respondents were also more likely to have a loan account than female respondents. Unlike asset accounts, the probability of having a loan account was lower for Non-white

[7] The coefficient estimate of Non-whites who communicated with financial institutions is the sum of the coefficients of Non-white (0.279), Behaviour_Communication (-0.154) and Non-white* Behaviour_Communication (1.319) and equals to 1.444 (p-value<0.01). The estimate is significantly different than the estimate of Non-white who did not communicate with financial institutions (0.279).

[8] The estimate of Non-whites who communicated with financial institutions (1.444) is significantly different than the estimate of Whites who communicated with financial institutions (-0.154).

respondents than White respondents. Changes in financial management behavior, especially communicating with financial institutions, had a significant and positive effect on obtaining a loan.

Model III in Table 7 shows that improving relationships with financial institutions had a dissimilar effect for Non-whites on obtaining credit than its effect on opening an asset account. Compared to White respondents who communicated with financial institutions, Non-white respondents who communicated with financial institutions were less likely to obtain a loan.[9] In addition, Non-whites who communicated with financial institutions were not significantly different than Non-whites who did not communicate with financial institutions in terms of likelihood of obtaining a loan.

Conclusions

This study contributes to the discussion on the effectiveness of financial education programs and the impact of financial education programs on consumer skills and behaviors. One of the goals of Get Checking™ program is to provide information to participants on how to manage a checking account (write checks, make deposits, use a check register, and reconcile a statement) and to emphasize how an account relationship can assist in establishing or improving credit. The results of this study provide evidence that the Get Checking™ program was effective in improving the financial management actions of the participants, especially the behaviors that led the participants to experience problems previously. In particular, a high percentage of the respondents of the follow-up survey indicated that they record financial transactions and communicate with financial institutions since the completion of the program.

The Get Checking™ program appears to be effective in teaching participants how to improve their relationships with financial institutions and in motivating them to follow through

[9] The coefficient estimate of Non-whites who communicated with financial institutions is the sum of the coefficients of Non-white (0.044), Behaviour_Communication (1.285) and Nonwhite* Behaviour_Communication (-1.035) and equals to 0.294. The estimate is significantly different than the estimate of Whites who communicated with financial institutions (1.285).

with action. The results show that the financial management skills emphasized in the program, especially communicating with financial institutions, had a significant positive effect on the actual behavior of the participants in terms of building financial assets and obtaining a loan. In a study that investigates the stages of asset accumulation, Beverly, McBride, and Schreiner (2003) suggest that ownership of an asset and a loan account is an important step in reallocating resources into assets. Therefore, it seems reasonable that opening an asset account or obtaining a loan will stimulate the participants to accumulate assets and establish a credit history. In addition, the results show that more than 90% of the respondents of the follow-up survey opened a checking account and still had the account open at the time survey was conducted. In addition, 54.4% of the respondents of the follow-up survey opened a savings account and still had the account open at the time the survey was conducted. The percentage of the follow-up survey respondents who opened a checking and savings account were comparable to the national averages of consumers with checking and savings accounts, which were 89.4% and 47.1% respectively in the 2004 SCF (Bucks et al. 2006).

Among the heterogeneous group of the unbanked, the findings shed light on the demographic groups, such as Non-whites and young adults, which could benefit the most from this type of financial management education in terms of building assets and obtaining a loan. All else equal, Non-whites were more likely to record financial transactions and communicate with financial institutions than Whites. The analysis in this study assumes that a "positive" change from no financial management behavior to a positive behavior occurred as the Get Checking^{TM} participants completed the program. Therefore, the reason that the White respondents did not indicate a significant change of behavior with respect to recording financial transactions and communicating with financial institutions, may be due to the fact that they were already involved in these financial management behaviors. Unfortunately,

information on participants' financial management practices before they participated in the Get Checking™ program, was not collected and the claim can not be tested.

Previous studies have found a gap in net worth and savings between Whites and Non-whites (Wakita et al. 2000). Non-whites have lower financial literacy, which is correlated with poor saving and investment behavior (Hilgert et al. 2003; Hogarth and Hilgert 2002). In addition, due to cultural differences and/or discrimination they had experienced, Non-whites do not communicate with financial institutions (Longhofer and Peters 2005). The findings of this study suggest that the saving and investment decisions of Non-whites are different than Whites because of their financial management skills. Financial educators and practitioners need to understand why Non-whites are less likely to obtain a loan. Are Non-whites less likely than Whites to communicate with financial institutions and request a loan? Are they discouraged from applying for a loan because they believe they will be turned down? If responses to these questions are affirmative, then the financial management needs of Non-whites are clearly different than Whites and financial management education programs need to be tailored to address these issues. Since most households need credit to become a home or a car owner, understanding the factors that impact Non-whites' approval for loans will help to reduce the gap in wealth accumulation between Whites and Non-Whites.

Some limitations of the study need to be addressed. Those who responded to the follow-up survey may be more motivated in terms of opening a checking, saving, or a loan account than those who did not respond. This would make these findings on the effectiveness of the Get Checking™ program more difficult to generalize. The summary statistics show that, in terms of household income and size, the respondents of the follow-up survey were not significantly different than the larger group of participants in the program. However, the respondents to the follow-up survey were older and more likely to be female. In addition, since the respondents to the follow-up survey were not linked to the information collected at the end

of the educational program, the initial level of financial literacy and financial management behavior could not be measured. The analysis was restricted to self-reported changes in financial behavior. Finally, the follow-up survey did not include questions on the amounts of assets accumulated and the terms of loans obtained. Future follow-ups would add to the evaluation of the effectiveness of the program by investigating how the program impacts the amount of assets accumulated in the savings and assets accounts and lowers the cost of credit for these formerly unbanked consumers.

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Table 1 Descriptive Statistics of Unbanked who Used to Have a Checking Account and Unbanked who Never Had a Checking Account

Variable	Banked percentages N=4,126	Unbanked percentages N=393	Unbanked who used to have a checking account percentages, N=208	Unbanked who never had a checking account percentages, N=185	
Age					
< 25	5.25	8.99	10.44	7.40	
25-34	15.47	25.47	27.27	23.51	
35-44	20.45	22.04	20.08	24.18	
45-55	22.68	20.65	22.54	18.58	
> 55	36.15	22.85	19.67	26.33	
Gender of the household head					
Married male	59.33	38.52	35.49	41.84	
Single male	13.96	21.42	23.44	19.21	
Single female	26.71	40.06	41.07	38.95	
Race of the household head					
White	77.44	41.16	54.38	26.69	**
Black	11.37	32.37	28.43	36.69	
Hispanic	7.43	23.93	15.47	33.19	**
Other	3.76	2.54	1.72	3.43	
Household size					
1	25.64	30.25	33.10	27.12	
2-3	50.74	43.49	43.89	43.05	
>4	23.62	26.26	23.01	29.83	
Household income ($)					
0-18,870	15.64	55.98	51.76	60.59	†
18,871-31,450	17.50	25.71	26.12	25.26	
31,451-50,320	21.21	13.80	17.08	10.20	*
Above 50,321	45.65	4.51	5.04	3.95	
Reason for not having a checking account:					
Do not write enough checks to make it worthwhile	---	28.09	24.44	32.09	†
Minimum balance too high	---	5.29	6.56	3.89	
Do not like dealing with banks	---	21.98	19.91	24.25	
Service charges too high	---	12.58	11.45	13.81	
Can't manage/balance a checking account	---	6.22	10.50	1.53	**
No bank has convenient hours or location	---	1.40	2.44	0.27	†
Don't have enough money	---	14.55	12.64	16.65	
Credit problems	---	2.60	4.32	0.73	*
Does not need/want a checking account	---	4.96	4.82	5.11	
Other reason	---	2.33	2.92	1.67	

Note. The source of the data is the 2004 Survey of Consumer Finances. †p-value<.1. *p-value<.05. **p-value<.01.

Table 2 Descriptive Statistics of the Get Checking Program Participants and those who Responded to the Follow-up Survey

Variable name	Description	End-of-session evaluation percentages N=1,483	Follow-up survey percentages N=160	Follow-up Survey	
				Whites N=84	Non-whites N=74
Age					
< 25	1 if respondent is under 25, 0 otherwise	22.05	15.00 †	16.67	13.51
25-34	1 if respondent is between 25 and 34, 0 otherwise	38.61	27.50 *	26.19	28.38
35-44	1 if respondent is between 35 and 44, 0 otherwise	23.86	29.38 *	29.76	28.38
45-55	1 if respondent is between 45 and 55, 0 otherwise	12.58	20.00 *	19.05	21.62
> 55	1 if respondent is over 55, 0 otherwise	2.89	8.13 **	8.33	8.11
Male	1 if respondent is male, 0 otherwise	44.12	36.71 *	50.60	21.92 **
Non-white	1 if respondent is non-white, 0 otherwise	50.80	46.84	---	---
Household size					
1	1 if respondent's households size is 1, 0 otherwise	26.30	28.75	36.90	20.27 *
2-3	1 if respondent's households size is 2 or 3, 0 otherwise	45.87	47.50	41.67	54.05
>4	1 if respondent's households size more than 3, 0 otherwise	27.83	22.50	20.24	25.68
Household income					
0-18,870	1 if household's annual income is less than $18,870, 0 otherwise	20.56	17.50	19.05	16.22
18,871-31,450	1 if household's annual income is between $18,871 and $31,450, 0 otherwise	32.84	32.50	29.76	36.49
31,451-50,320	1 if household's annual income is between $31,451 and $50,320, 0 otherwise	25.30	23.75	23.81	24.32
Above 50,321	1 if household's annual income is over $50,321, 0 otherwise	21.30	24.38	26.19	21.62
Highest confidence level of[1]:					
Maintaining check Register	1 if respondent responded 5 in a 1-5 scale to a question "How confident do you feel about maintaining your check register?," 0 otherwise	84.20	---	---	---
Balancing with bank Statement	1 if respondent responded 5 in a 1-5 scale to a question "How confident d you feel about balancing your expenditures with a bank statement?," 0 otherwise	80.20	---	---	---
Talking about saving Goals	1 if respondent responded 5 in a 1-5 scale to a question "How confident d you feel about talking to financial institution about saving goals?," 0 otherwise	75.70	---	---	---
Talking about credit Needs	1 if respondent responded 5 in a 1-5 scale to a question "How confident do you feel about talking to financial institution about credit needs?," 0 otherwise	74.40	---	---	---

Note. The source of the data is the Central Indiana Get Checking™ program.
[1] Questions on level of confidence about financial management activities were not included in the follow-up survey.
†p-value<.1. *p-value<.05. **p-value<.01.

Table 3 Accounts and Financial Management Behavior of those who Responded to the Follow-up Survey

Variable name	Description	Follow-up survey Percentages N=160	Changed the behavior of communicating with the financial institution N=71	Didn't change the behavior of communicating with the financial institution N=89	
Opened checking account	1 if respondent opened a checking account after certificate, 0 otherwise	97.50	100.00	95.51	*
Checking account still open	1 if respondent's checking account is still open, 0 otherwise	90.63	92.96	88.76	
Opened saving account	1 if respondent opened a saving account after certificate, 0 otherwise	56.49	63.24	51.16	
Saving account still open	1 if respondent's saving account is still open, 0 otherwise	54.38	60.56	49.44	
Asset accounts	1 if respondent opened another asset account after certificate, 0 otherwise	15.00	22.54	8.99	*
Certificates of deposit	1 if respondent's another asset account is certificate of deposit, 0 otherwise	5.00	5.63	4.49	
Retirement savings	1 if respondent's another asset account is retirement saving, 0 otherwise	6.25	11.27	2.25	*
Other asset accounts [1]	1 if respondent's another asset account is a different type of an account, 0 otherwise	10.00	14.08	6.74	
Loan accounts	1 if respondent opened a loan account after certificate, 0 otherwise	16.25	25.35	8.99	**
Mortgage	1 if respondent's loan account is mortgage, 0 otherwise	7.50	9.86	5.62	
Auto loan	1 if respondent's loan account is auto loan, 0 otherwise	9.38	14.08	5.62	†
Other loan accounts [2]	1 if respondent's loan account is a different type of a loan, 0 otherwise	3.57	5.63	2.25	
Restitution completed					
1 month	1 if respondent repaid her debts within 1 month after certificate, 0 otherwise	40.00	39.44	40.45	
2-3 months	1 if respondent repaid her debts within 2 or 3 months after certificate, 0 otherwise	5.63	7.04	4.49	
4-5 months	1 if respondent repaid her debts within 4 or 5 months after certificate, 0 otherwise	1.88	0.00	3.37	†
6 months	1 if respondent repaid her debts within 6 months after certificate, 0 otherwise	2.50	5.63	0.00	*
Still repaying	1 if respondent was still repaying debt, 0 otherwise	10.63	9.86	11.24	
Did not owe	1 if respondent did not owe money to financial institution after certificate, 0 otherwise	38.75	38.03	39.33	
Differences in behavior					
Recording	1 if respondent changed the behavior of recording transactions, 0 otherwise	75.00	87.32	65.17	**
Reconciling	1 if respondent changed the behavior of reconciling bank statement, 0 otherwise	53.13	61.97	46.07	*
Budgeting	1 if respondent changed the behavior of budgeting, 0 otherwise	67.50	81.69	56.18	**
Communicating	1 if respondent changed the behavior of communicating with financial institution, 0 otherwise	44.38	---	---	

Note. [1] Other asset accounts includes money market accounts, college education savings, and business accounts. [2] Other loan accounts includes credit card accounts, personal loans. †p-value<.1. *p-value<.05. **p-value<.01.

Table 4 Probit Models for Changes in Financial Management Behavior (Recording, Reconciling, Budgeting, and Communicating)

Variable name	Recording N=156			Reconciling N=156			Budgeting N=156			Communicating N=156		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	0.332	0.444		-0.545	0.403		-0.183	0.423		-0.384	0.378	
Age												
< 25 (reference)	---	---	---	---	---	---	---	---	---	---	---	---
25-34	-0.216	0.391	-0.084	0.156	0.342	0.056	0.617	0.362†	0.240	0.056	0.324	0.021
35-44	-0.361	0.390	-0.142	0.041	0.339	0.014	0.020	0.359	0.008	-0.316	0.326	-0.109
45-55	0.103	0.412	0.038	0.645	0.370†	0.247	0.407	0.379	0.161	-0.144	0.360	-0.052
> 55	0.384	0.527	0.133	1.111	0.472*	0.421	0.501	0.464	0.197	-0.213	0.451	-0.075
Male	0.522	0.272†	0.173	0.282	0.239	0.103	0.146	0.249	0.058	0.207	0.236	0.079
Non-white	0.558	0.253*	0.183	0.071	0.223	0.025	0.197	0.228	0.078	0.482	0.220*	0.189
Household size												
1 (reference)	---	---	---	---	---	---	---	---	---	---	---	---
2-3	-0.237	0.272	-0.092	0.121	0.257	0.043	-0.104	0.266	-0.040	-0.140	0.259	-0.050
>4	0.057	0.361	0.021	-0.024	0.328	-0.008	0.480	0.333	0.189	-0.129	0.317	-0.046
Household income												
0-18,870	0.161	0.310	0.059	0.003	0.303	0.001	-0.129	0.317	-0.050	0.021	0.306	0.008
18,871-31,450(ref.)	---	---	---	---	---	---	---	---	---	---	---	---
31,451-50,320	0.090	0.301	0.034	0.193	0.287	0.070	0.310	0.295	0.123	0.382	0.283	0.149
Above 50,321	0.446	0.347	0.152	0.622	0.304*	0.238	0.541	0.310†	0.213	0.231	0.295	0.089
Base probability	0.6301			0.2928			0.4276			0.3504		
Pseudo R^2	0.0826			0.0712			0.0810			0.0398		
Log Likelihood	-80.4754			-100.0027			-90.6064			-102.8309		

Note. †p-value<.1. *p-value<.05. **p-value<.01.

Table 5 Probit Models for Savings Accounts

Variable name	Model I N=150			Model II N=150			Model III N=150		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	0.235	0.403		0.324	0.437		0.325	0.440	
Age									
< 25 (reference)	---	---	---	---	---	---	---	---	---
25-34	0.282	0.343	0.105	0.246	0.353	0.089	0.246	0.353	0.089
35-44	0.316	0.344	0.116	0.290	0.347	0.103	0.291	0.347	0.104
45-55	-0.055	0.370	-0.021	-0.059	0.377	-0.023	-0.058	0.381	-0.022
> 55	0.114	0.471	0.044	0.118	0.488	0.044	0.117	0.488	0.043
Male	-0.191	0.249	-0.076	-0.191	0.253	-0.074	-0.191	0.254	-0.074
Non-white	0.310	0.236	0.114	0.310	0.242	0.110	0.305	0.321	0.108
Household size									
1 (reference)	---	---	---	---	---	---	---	---	---
2-3	-0.293	0.268	-0.116	-0.290	0.267	-0.113	-0.290	0.266	-0.113
>4	-0.732	0.352*	-0.283	-0.671	0.357†	-0.263	-0.670	0.357*	-0.263
Household income									
0-18,870	-0.662	0.315*	-0.258	-0.657	0.322*	-0.257	-0.655	0.325*	-0.257
18,871-31,450 (reference)	---	---	---	---	---	---	---	---	---
31,451-50,320	-0.239	0.286	-0.094	-0.284	0.290	-0.111	-0.284	0.290	-0.111
Above 50,321	0.809	0.321*	0.259	0.839	0.325*	0.251	0.840	0.329*	0.251
Differences in behavior [1]									
Recording				-0.279	0.331	-0.109	-0.278	0.335	-0.109
Reconciling				-0.047	0.244	0.021	0.055	0.294	0.020
Budgeting				0.307	0.237	-0.018	-0.047	0.244	-0.018
Communicating				0.056	0.287	0.109	0.302	0.329	0.107
Interaction term									
Communicating*Non-white							0.012	0.462	0.004
Base probability	0.5930			0.6269			0.6273		
Pseudo R^2	0.1118			0.1213			0.1213		
Log Likelihood	-91.1627			-90.1811			-90.1808		

Note. [1] No reference group due to multiple answers available. †p-value<.1. *p-value<.05. **p-value<.01.

Table 6 Probit Models for Asset Accounts

Variable name	Model I N=156			Model II N=156			Model III N=156		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	-0.920	0.440*		-0.916	0.560		-0.735	0.538	
Age									
< 25 (reference)	---	---	---	---	---	---	---	---	---
25-34	-1.269	0.451**	-0.165	-1.525	0.459**	-0.173	-1.553	0.477**	-0.220
35-44	-0.353	0.402	-0.077	-0.393	0.407	-0.085	-0.327	0.410	-0.087
45-55	-0.520	0.409	-0.104	-0.611	0.406	-0.117	-0.508	0.422	-0.124
> 55	-1.062	0.626†	-0.155	-1.268	0.639*	-0.165	-1.284	0.621*	-0.210
Male	0.358	0.292	0.108	0.353	0.277	0.107	0.301	0.281	0.101
Non-white	0.955	0.308**	0.335	0.957	0.299**	0.336	0.279	0.449	0.093
Household size									
1 (reference)	---	---	---	---	---	---	---	---	---
2-3	-0.431	0.354	-0.090	-0.493	0.377	-0.100	-0.473	0.375	-0.118
>4	-0.291	0.358	-0.066	-0.326	0.387	-0.073	-0.403	0.396	-0.104
Household income									
0-18,870	-0.479	0.485	-0.098	-0.472	0.507	-0.097	-0.385	0.504	-0.100
18,871-31,450 (reference)	---	---	---	---	---	---	---	---	---
31,451-50,320	0.130	0.347	0.036	0.026	0.342	0.007	0.034	0.349	0.011
Above 50,321	0.143	0.344	0.040	0.153	0.364	0.043	0.294	0.393	0.098
Differences in behavior [1]									
Recording				-0.775	0.427†	-0.134	-0.643	0.423	-0.147
Reconciling				0.415	0.386	0.129	0.320	0.399	0.108
Budgeting				0.265	0.307	0.078	0.280	0.315	0.094
Communicating				0.601	0.285*	0.196	-0.154	0.459	-0.044
Interaction term									
Communicating*Non-white							1.319	0.632*	0.489
Base probability	0.1788			0.1799			0.2313		
Pseudo R^2	0.1632			0.2202			0.2541		
Log Likelihood	-54.5993			-50.8752			-48.6662		

Note. [1] No reference group due to multiple answers available. †p-value<.1. *p-value<.05. **p-value<.01.

Table 7 Probit Models for Loan Accounts

Variable name	Model I N=156			Model II N=156			Model III N=156		
	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect	Parameter Estimate	Standard Error	Marginal Effect
Intercept	-0.345	0.451		-0.468	0.508		-0.553	0.532	
Age									
< 25 (reference)	---	---	---	---	---	---	---	---	---
25-34	-0.922	0.406*	-0.262	-1.133	0.409**	-0.265	-1.148	0.412**	-0.246
35-44	-0.778	0.405†	-0.234	-0.884	0.388*	-0.232	-0.972	0.411*	-0.227
> 45	-0.876	0.403*	-0.254	-1.063	0.392**	-0.257	-1.143	0.414**	-0.245
Male	0.496	0.263†	0.195	0.502	0.277†	0.194	0.599	0.292*	0.228
Non-white	-0.417	0.257	-0.142	-0.631	0.291*	-0.184	0.044	0.393	0.015
Household size									
1 (reference)	---	---	---	---	---	---	---	---	---
2-3	0.046	0.293	0.017	0.086	0.317	0.031	0.068	0.329	0.024
>4	-0.350	0.385	-0.121	-0.434	0.391	-0.136	-0.403	0.388	-0.121
Household income									
0-18,870	-0.371	0.437	-0.128	-0.543	0.512	-0.164	-0.687	0.506	-0.183
18,871-31,450 (reference)	---	---	---	---	---	---	---	---	---
31,451-50,320	0.221	0.363	0.086	0.113	0.366	0.042	0.162	0.377	0.058
Above 50,321	0.092	0.349	0.035	-0.038	0.372	-0.013	-0.131	0.377	-0.043
Differences in behavior [1]									
Recording				-0.200	0.414	-0.068	-0.354	0.385	-0.108
Reconciling				0.262	0.348	0.099	0.395	0.333	0.147
Budgeting				-0.120	0.318	-0.042	-0.170	0.318	-0.055
Communicating				0.919	0.312**	0.354	1.285	0.367**	0.478
Interaction term									
Communicating*Non-white							-1.035	0.556†	-0.234
Base probability	0.3649			0.3200			0.2901		
Pseudo R^2	0.1256			0.2020			0.2203		
Log Likelihood	-60.0340			-54.7874			-53.5329		

Note. †p-value<.1. *p-value<.05. **p-value<.01.

APPENDIX Accounts & Financial Management Behavior of those who responded to the follow-up Survey by Age and Race

Variable name	Under age 25 percentages N=24	Over age 25 percentages N=136	Whites percentages N=84	Non-whites Percentages N=74
Opened checking account	100.00	97.06 *	97.62	97.30
Checking account still open	91.67	90.44	88.10	93.24
Opened saving account	43.48	58.78	51.85	61.97
Saving account still open	41.67	56.62	50.00	59.46
Asset accounts	25.00	13.24 *	9.52	24.32 *
Certificates of deposit	8.33	4.41	3.57	6.76
Retirement savings	12.50	5.15	2.38	10.81 *
Other asset accounts [1]	20.83	8.09 †	7.14	13.51
Loan accounts	33.33	13.24 †	22.62	10.81 *
Mortgage	12.50	6.62	10.71	4.05
Car loan	25.00	6.62 †	10.71	8.11
Other loan accounts [2]	4.17	3.68	7.14	1.35 †
Restitution completed				
1 month	54.17	37.50	40.48	39.19
2-3 months	4.17	5.88	4.76	6.76
4-5 months	4.17	1.47	1.19	2.70
6 months	0.00	2.94 †	1.19	4.05
Did not owe	29.17	40.44	44.05	32.43
Still repaying	8.33	11.03	8.33	13.51
Differences in behavior				
Recording	79.17	74.26	70.24	81.08
Reconciling	41.67	55.15	53.57	54.05
Budgeting	54.17	69.85	64.29	70.27
Communicating	45.83	44.12	36.90	52.70 *

Note. [1] Other asset accounts includes money market accounts, college education savings, and business accounts.
[2] Other loan accounts includes credit card accounts, personal loans. †p-value<.1. *p-value<.05. **p-value<.01.

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